

C. Remarks

The claims are 1-10 and 12-15, with claims 1-3, 8-10, 12 and 13 being independent. Claim 16 has been cancelled without prejudice or disclaimer. Claims 1-3, 5-10 and 12-15 have been amended to clarify the invention. In particular, the claims have been amended to more clearly define “specification information”. The amendments are fully supported by the application as filed; accordingly, no new matter has been added. Reconsideration of the present claims is respectfully requested.

Claims 1-3, 8-10, 12, 13 and 16 stand rejected under 35 U.S.C. §102(e) as being anticipated by Walker (U.S. Patent No. 6,707,572). Claims 4-7, 14 and 15 stand rejected under 35 U.S.C. §103(a) as being obvious over Walker in view of Nou (U.S. Patent No. 6,932,452). Applicants respectfully traverse these rejections.

The invention (as presently defined in independent claims 1, 2, 8, 10 and 12) has at least two characteristic elements. First, specification information (e.g., patterns shown in Figs. 6 and 18) is selected/assigned to a pixel on the basis of a density level of the pixel to be printed; the specification information specifies how many dots of a single size are printed on the pixel to be printed by specifying which one or more movements of the plurality of movements of the print head are used to print a particular dot on the pixel to be printed. Second, when the density level of the pixel is higher than a predetermined density level, the specification information specifying a combination of the scans used to print the dots is selected. By virtue of this “pass allocation pattern” system (see, e.g., paragraph [0086] of present application as published), when the specification information is assigned to the pixel, each of one or more dots to be printed to form a pixel is determined to be

recorded in a particular number of scans. Therefore, a mask pattern conventionally used in multi-pass printing becomes unnecessary.

Moreover, when the density of the pixel exceeds the predetermined level, the specification information specifying a combination of the scans used to print the dots is selected. As a result, deterioration of a pixel caused by multi-pass printing lessens because multiple dots having single size are recorded in a pixel in different scans. Independent claims 3, 9 and 13, while addressing configurations slightly different from that noted above, are directed to methods or computer program products which have substantially the same features as those noted above.

Walker does not disclose or suggest the pass allocation pattern of the present invention. Instead, in its Figures 2 and 3, Walker teaches that a value of a target pixel P is changed from a positive value into a null value thereby reducing a density of a high density area when the target pixel P and all four immediately adjacent pixel elements 32 have positive values. According to such conversion of pixel values, an image area having pixel values as shown in the upper table in column 5 is converted into an area shown in the lower table in column 6 or the lower table in column 9. These tables show neither (a) one or more movements used to print one or more dots having a single size on the pixel nor (b) the number of the one or more dots to be printed on the pixel on the basis of a density level of the pixel. These tables merely show an arrangement of pixels in an image area, i.e., a pixel map.

Nou does not remedy these deficiencies and is cited by the Examiner merely for its purported disclosure of multiple sets of specification information. For at least these

reasons, Applicants submit that Walker fails to anticipate the present claims and that the combination of Walker and Nou fails to render the present invention obvious. Simply put, neither reference discloses or suggests at least two key features of the present claims, namely the selection/assignment of specification information to a pixel and the specification of a combination of scans to print dots when the density level of the pixel is higher than a predetermined density level. Accordingly, Applicants respectfully request withdrawal of the §102 and §103 rejections.

In view of the foregoing remarks, favorable reconsideration and passage to issue is earnestly requested. Should the Examiner believe that issues remain outstanding, the Examiner is respectfully requested to contact Applicants' undersigned attorney in an effort to resolve such issues and advance the case to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

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